

- 1 11. The reagent of claim 1, wherein the surface marker is CD22.
- 1 12. The reagent of claim 1, wherein the surface marker is CD74.
- 1 13. The reagent of claim 12, wherein the antibody is LL1.
- 1 14. The reagent of claim 1, wherein the onc protein is conjugated to the
2 antibody through recombinant fusion.
- 1 15. A nucleic acid sequence encoding the reagent of claim 1.
- 1 16. A pharmaceutical composition comprising a selective cytotoxic
2 reagent comprising an onc protein having measurable ribonucleolytic activity joined to an
3 antibody directed against a cell surface marker expressed by a B cell together with a
4 pharmaceutically acceptable carrier.
- 1 17. The pharmaceutical composition of claim 16, wherein the onc
2 protein has the amino acid sequence of SEQ ID NO:1.
- 1 18. The pharmaceutical composition of claim 16, wherein the onc
2 protein is produced by recombinant means.
- 1 19. The pharmaceutical composition of claim 18, wherein the onc
2 protein has the amino acid sequence of SEQ ID NO:3.
- 1 20. The pharmaceutical composition of claim 18, wherein the onc
2 protein is encoded by the nucleic acid molecule identified as SEQ ID NO:2.
- 1 21. The pharmaceutical composition of claim 16, wherein the onc
2 protein is conjugated to the antibody through recombinant means.

1 22. The pharmaceutical composition of claim 16, wherein the antibody
2 is a monoclonal antibody.

1 23. The pharmaceutical composition of claim 22, wherein the
2 monoclonal antibody is humanized.

1 24. The pharmaceutical composition of claim 23, wherein the
2 monoclonal antibody is a single chain antibody.

1 25. The pharmaceutical composition of claim 16, wherein the antibody
2 is directed against a surface marker present on B cell lymphomas.

1 26. The pharmaceutical composition of claim 25, wherein the antibody
2 is selected from the group consisting of RFB4, LL1 and LL2.

1 27. A method of killing malignant B cells comprising contacting cells
2 to be killed with a selective cytotoxic reagent comprising an onc protein having
3 measurable ribonucleolytic activity joined to an antibody directed against a cell surface
4 marker on B cells.

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6 28. The method of claim 27, wherein the onc protein has the amino acid
7 sequence of SEQ ID NO:1.

1 29. The method of claim 27, wherein the onc protein is produced by
2 recombinant means.

1 30. The method of claim 29, wherein the onc protein has the amino acid
2 sequence of SEQ ID NO:3.

1 31. The method of claim 29, wherein the onc protein is encoded by a
2 nucleic acid molecule identified as SEQ ID NO:2.

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32. The method of claim 27, wherein the cell surface marker is CD22.

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33. A method of killing malignant cells bearing a CD74 cell surface

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marker comprising contacting cells to be killed with a selective cytotoxic reagent

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comprising an onc protein having measurable ribonucleolytic activity joined to an

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antibody directed against CD74.

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34. The method of claim 33, wherein the cells to be killed are selected

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from the group consisting of neuroblastoma, melanoma and myeloma.